

CLAIMS

1. A suspension system for a vehicle seat comprising:
a top portion;
5 a first part having a base portion, means to receive the top portion and means to allow movement of the base portion and top portion towards and away from each other;
a second part comprising a spring element adapted in use to control movement of the base portion and top portion towards and away from
10 each other; and wherein the top portion and the second part are releasably connected to the first part.
2. A system according to Claim 1 wherein the top portion is provided with an upper surface and a lower surface.
- 15 3. A system according to Claim 1 or Claim 2 wherein the base portion is provided with an upper surface and a lower surface.
4. A system according to any preceding claim wherein the top portion
20 and the base portion are secured to each other by the provision of at least one pair of pivotally connected arms.
5. A system according to Claim 4 wherein:
25 a first arm in each pair has one end pivotally secured to the base portion and a second arm in each pair has one end releasably pivotally secured to the top portion;
the free end of each second arm is provided with means to allow it to move relative to an upper surface of the base portion; and
30 the free end of each first arm is provided with means to allow it to move relative to a lower surface of the top portion.

6. A system according to any preceding claim wherein the spring element is an air spring.

7. A system according to Claim 6, when dependent on Claim 5, wherein
5 the air spring is positioned between the base portion and one of the first and second arms to control movement of the arms relative to the base portion.

8. A system according to Claim 6 wherein the air spring is positioned
10 between the first and second arms of the at least one pair of arms to control movement of the arms relative to each other.

9. A system according to Claim 7 or 8 wherein the air spring is positioned on a, or between two, suitable mountings positioned between
15 the first arms or the second arms of a pair of arms.

10. A system according to any of Claims 1 to 5 wherein the spring element comprises one or more mechanical tension springs.

20 11. A system according to Claim 10, when dependent on Claim 5, wherein the or each mechanical tension spring has a first and a second end and wherein the first end is adapted to act on the free end of the first arm and the second end of the or each mechanical tension spring is secured to the top portion.

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12. A system according to any preceding claim wherein the top portion is generally rectangular having a pair of opposing short sides and a pair of opposing long sides and the top portion is provided with one portion adapted to be releasably secured to each second arm of the first part.

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13. A system according to Claim 12 wherein the or each portion adapted to be releasably secured to each second arm is preferably a wing extending from the opposing long sides and the or each wing is provided with an aperture therethrough.

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14. A system according to Claim 13 wherein a corresponding aperture is provided through the or each second arm of the first part.

15. A system according to Claim 14 wherein a pivot bolt is provided of a suitable size to pass through the aperture in each wing and in each second arm.

16. A system according to any preceding claim wherein the means to receive the free end of the or each first arm comprises one or more channels in which the free end of the or each first arm is received and the or each channel is suitably sized to allow movement of the free end of the or each first arm over a lower surface of the top portion within the or each channel as the top part and base part move towards and away from each other.

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17. A system according to Claim 1 wherein the means to receive the top part and to allow the base portion and the top portion to move towards and away from each other comprise one or more bars designed to extend from the base portion and receive the top portion and being pivotally secured directly between the top portion and the base portion, or by pivotal linkages.

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18. A system according to Claim 17 wherein a spring element is positioned to act in use between the top portion and base portion.

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19. A suspension system substantially as described herein and with reference to the drawings.